

20. (New) The method of claim 4 wherein the photograph corresponds to a set of pixels, and the steganographic encoding spans a portion of pixels having substantially non-uniform values.

21. (New) The method of claim 4 wherein the processing includes discerning an apparent rotation of the scan data from an original orientation of the encoding, and compensating therefor.

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cont'd
22. (New) The method of claim 21 wherein the processing includes discerning an apparent scaling of the scan data from an original scale of the encoding, and compensating therefor.

23. (New) The method of claim 4 wherein the decoding includes discerning an apparent scaling of the scan data from an original scale of the encoding, and compensating therefor.--

REMARKS

After entry of the foregoing amendment, claims 1-4, and 6-23 are pending in the application. Reconsideration is requested in view of the foregoing amendments and the following remarks.

The priority claim has been amended (1) to reference a newly-issued patent, and (2) to extend the priority claim to application 60/082,228, filed April 16, 1998. The Examiner is requested to note the changed priority claim in the PTO's PAIR database.

Applicants note that pending application 09/314,648 (Ex'r Choobin) includes claims that might be viewed as related to claims in the present application. Sample claims from that application include:

10. A method comprising:
 - presenting a printed promotion to an optical sensor at a first site, the optical sensor producing output data;
 - decoding steganographically-encoded plural-bit data from the sensor output data;
 - using said data to establish a link to an internet site relating to a company, product, or service promoted by said printed promotion; and
 - transferring to from the internet site to the first site additional information relating to said company, product, or service.

19. The method of claim 10 wherein the decoding includes discerning an apparent rotation of the sensor output data from an original orientation of the encoding, and compensating therefor.

21. The method of claim 10 wherein the decoding includes discerning an apparent scaling of the sensor output data from an original scale of the encoding, and compensating therefor.

Claims 1, 2 and 4 stand rejected over Rathus (5,292,863) in view of Rhoads (6,285,776).

The points earlier made concerning these references are maintained.

The Action is in error in certain of its statements, e.g., that “*the invisible bar code described in Rathus et al (see column 6, lines 10-16) would be read by the visible light scanner taught in Rhoads.*” Rathus does not describe an “invisible bar code” (its description is non-enabling). And any bar code implemented with inks designed to be detectable with ultraviolet illumination, and transparent (“invisible”) to visible light, would not be readable by a visible light scanner.

In the interests of expediting conclusion of prosecution, claim 1 has been amended to further require that the steganographic encoding:

- *substantially span the article rather than being localized in one excerpt thereof; and*
- *span a portion of the article having a substantially non-uniform appearance.*

Finally, the undersigned notes that the subject matter of claim 1 is the invention of Rhoads, alone. His invention date relates back at least to April 16, 1998, to provisional application 60/082,228, on which he is the sole inventor. (Priority is now claimed to this provisional application.)¹ Accordingly, applicants respectfully submit that the cited

¹ See in this connection the disclosure of steganographically-encoded catalog pages, in a paragraph bridging pp. 5-6 of the 1998 provisional application, which notes:

The foregoing techniques are not limited to digital content files. The same approach is equally applicable with printed imagery, etc. A printed catalog, for example, can include a picture illustrating a jacket. Embedded in the picture is watermarked data. This data can be extracted by a simple hand-scanner/decoder device using straightforward scanning and decoding techniques (e.g. those known to artisans in those fields). In watermark-reading applications employing hand-scanners and the like, it is important that the watermark decoder be robust to rotation of the image, since the catalog photo will likely be scanned off-axis. One option is to encode subliminal graticules (e.g. visualization synchronization codes) in the catalog photo so that the set of image data can be post-processed to restore it to proper alignment prior to decoding.

Rhoads patent 6,285,776 (naming Rhoads, alone, as inventor) is not available as prior art against claim 1.

Claims 7-10 are dependent from claim 1 and further distinguish the art.

Claim 2 has been amended to specify that the first and second encoded data are each "plural-bit," but the claim is otherwise unchanged.

Claim 2 encompasses applications like that detailed at the bottom of page 37 of the Substitute Spec, which notes:

Identical advertisements can be placed in several different magazines. Each is encoded with a different Bedoop UID. By monitoring the UIDs of the Bedoop inquiries to the site, the travel service can determine which magazines yield the highest consumer response (e.g., per thousand readers).

By the claim 2 arrangement, for example, Proctor and Gamble can determine whether a detergent advertisement in *Good Housekeeping* prompts a better consumer response than the same advertisement placed in *Better Homes and Gardens*.

The cited art fails to teach or suggest any such arrangement.

As to claim 4, Rathus does not teach encoding of a travel photograph. (It is not understood that Rathus concerns any method for encoding of photographs.)

Again, to expedite prosecution, applicants have amended claim 4 to specify that "*the steganographic encoding having a strength that varies across the photograph in accordance with local characteristics thereof, so as to aid concealment of the encoding.*"

New claims 18-23 are dependent from claim 4 and further distinguish the art.

Claims 3 and 5 stand rejected over Fajkowski (5,905,246) in view of Rathus.

Claim 3 has been amended to incorporate the limitation of claim 5. Claim 5 has been cancelled.

Again, in the interest of expediting prosecution, claim 3 has additionally been amended to specify "*the steganographic encoding having a strength that varies across the object in accordance with local characteristics thereof, so as to aid concealment of the encoding.*"

New claims 14-17 are dependent from claim 3, and further distinguish the art.

Independent claim 6 is newly added. It is similar to claim 1 (including being the invention of Rhoads, alone), but the encoding is differently characterized, i.e., "*the steganographic encoding having a strength that varies across the article in accordance with local characteristics thereof, so as to aid concealment of the encoding.*"

In view of the foregoing, each of claims 1-4 and 6-23 is believed to be in condition for allowance. Action to that end is respectfully solicited.

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Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'William G. Conwell', written over a horizontal line.

By

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Version with Markings to Show Changes Made

In the Specification:

Amend the Related Application Data paragraph at page 1, lines 4-9, as follows:

This application is a continuation-in-part of copending application 09/130,624, filed August 6, 1998 (**now Patent 6,324,573**), which is a continuation of application 08/508,083 (now Patent 5,841,978). This application is also a continuation-in part of copending application 09/314,648, filed May 19, 1999 (attached as Appendix A). This application is also a continuation-in-part of copending provisional application 60/134,782, also filed May 19, 1999 (attached as Appendix B). **This application is also a continuation-in-part of copending application 09/292,569, filed April 15, 1999, which is a non-provisional of application 60/082,228, filed April 16, 1998.**

At page 54 of the Substitute Specification filed October 16, 2001, lines 16-18, rewrite the paragraph as follows:

To provide a comprehensive disclosure without unduly lengthening this specification, applicants incorporate by reference the patents, applications, and publications identified above, **except applications 09/292,569 and 60/082,228.**

In the Claims:

1. (Amended) A promotional method comprising:
steganographically encoding [a print advertisement] **an article of printed promotional material** to hide plural-bit data therein, **the steganographic encoding substantially spanning the article rather than being localized in one excerpt thereof, and spanning a portion of the article having a substantially non-uniform appearance;**
acquiring visible light scan data from the [print advertisement] **printed promotional material** and processing same to extract the plural-bit data therefrom; **and**

using at least a part of the extracted plural-bit data to direct an internet web browser to a web site that provides consumer information related to a product or service promoted by the [print advertisement] **printed promotional material**.

2. (Amended) A method of determining consumer response to print advertising, comprising:

steganographically encoding a first print advertisement with first **plural-bit** data;
steganographically encoding a second print advertisement with second **plural-bit** data;

decoding the first and second data when consumers present the first and second advertisements to a visible light optical sensor; and

tallying the number of decoded first and second data, respectively, to determine consumer response to the advertisements.

3. (Amended) A promotional method comprising:

presenting [an] **a steganographically-encoded** object within the field of view of a visible light optical sensor device, the object being selected from the list consisting of a retail product, or packaging for a retail product, **the steganographic encoding having a strength that varies across the object in accordance with local characteristics thereof, so as to aid concealment of the encoding**;

acquiring optical data corresponding to the object;
decoding plural-bit digital data from the optical data;
submitting at least some of said decoded data to a remote computer; and
determining at the remote computer whether a prize should be awarded in response to submission of said decoded data.

4. (Amended) A method of travel promotion, comprising:

steganographically encoding a travel photograph to hide plural-bit data therein, **the steganographic encoding having a strength that varies across the photograph in**

accordance with local characteristics thereof, so as to aid concealment of the encoding;

acquiring visible light scan data from the travel photograph and processing same to extract the plural-bit data therefrom; and

using at least part of the extracted plural-bit data to direct an internet web browser to a web site that provides travel information useful to a consumer who wishes to visit the location depicted in the photograph.